

3.3 McKittrick

Daily minimum, maximum, and average values of temperature (T), relative humidity (RH), scalar wind speed (S), and standard deviation of the unit vector wind direction (σ_θ) are listed in Tables 11, 12, 13, and 14. In addition, unit vector wind direction (θ) and vector wind speed (U) for each day are also listed in these tables. The 5-min values of θ and U were used to construct wind roses for June, July, August, and September which are shown in Figures 29, 30, 31, and 32, respectively.

Like the Carrizo Plain, the weather at McKittrick is often hot and dry. Daytime highs average 30 to 35 °C with relative humidities of about 20%. Low temperatures range from 16 to 20 °C with relative humidities rising to about 50%. On average, scalar wind speeds are about 2.5 to 3.0 m s⁻¹. Unlike the Carrizo Plain, however, the predominant wind flow is from the southwest with a secondary wind flow from the northeast. While this southwesterly wind dominates the flow regime, it rarely exceeds 5 m s⁻¹.

Table 11. McKittrick monthly weather and wind summary for June.

Day	T (°C)			RH (%)			S (m s ⁻¹)			Θ (deg)	U (m s ⁻¹)	ϕ_θ (deg)		
	min	max	avg	min	max	avg	min	max	avg			min	max	avg
1	13.7	32.9	24.0	13.9	33.6	22.3	0.6	5.9	2.7	223.6	0.6	2.7	71.7	17.9
2	15.9	34.3	26.4	12.1	41.0	20.8	0.6	4.2	2.5	277.2	0.7	3.4	50.1	18.7
3	16.3	34.3	25.7	13.9	43.7	25.3	0.5	4.8	2.5	169.5	0.4	2.7	63.5	17.7
4	17.6	37.2	28.4	11.0	48.0	22.3	0.6	8.0	3.5	237.3	1.7	2.5	60.5	16.6
5	11.0	27.8	20.9	13.6	67.1	32.7	0.4	5.1	2.3	12.5	0.5	5.2	68.4	21.4
6	14.9	31.6	23.9	17.0	72.6	34.2	0.6	4.4	2.3	320.0	0.6	3.0	64.8	18.8
7	16.1	31.5	23.1	14.0	51.4	32.3	1.1	10.8	3.5	254.1	1.1	4.5	55.1	17.9
8	12.6	21.4	16.6	37.7	85.1	61.0	0.3+	8.2+	3.0+	311.6+	1.7+	5.7	55.8	19.7
9	11.0	24.0	18.1	34.7	87.2	57.1	0.2+	4.4+	1.8+	10.5+	0.7+	3.2	60.8	20.2
10	11.6	26.1	19.1	23.0	77.9	48.1	0.7	4.0	2.2	323.2	1.3	3.6	75.4	20.3
11	12.5	28.5	21.5	16.4	60.7	34.6	0.6	4.6	2.2	321.9	1.3	4.5	64.6	19.5
12	16.3	31.4	24.0	22.4	50.9	35.4	0.4	5.8	2.6	323.6	1.5	3.3	75.4	18.3
13	19.6	34.2	27.3	27.8	65.8	42.1	0.4	4.9	2.6	313.5	1.3	3.3	70.2	17.5
14	22.0	40.2	31.7	20.3	58.5	35.4	0.4	4.6	2.7	268.7	0.6	2.8	64.3	17.1
15	25.7	41.4	34.4	13.3	38.5	23.6	0.5	5.2	2.9	288.2	0.9	2.7	72.6	17.2
16	24.7	39.2	32.4	16.6	38.8	24.6	0.6	5.3	3.1	311.3	0.5	2.4	58.2	16.1
17	22.1	36.9	30.0	19.9	43.8	28.3	0.8	4.9	3.0	299.2	1.0	2.3	37.8	15.9
18	18.5	32.7	26.0	28.5	61.1	42.1	0.5	4.3	2.4	3.4	0.6	3.2	66.3	18.4
19	16.4	33.2	25.6	25.2	73.9	44.7	0.6	4.0	2.3	68.9	0.4	2.1	71.9	17.8
20	20.7	36.1	28.9	23.1	55.2	37.6	0.9	4.7	2.7	292.0	0.7	2.5	63.0	17.4
21	22.1	38.3	31.4	15.7	49.4	28.8	0.7	4.2	2.6	288.9	0.3	2.8	60.2	16.8
22	23.1	39.3	31.8	8.9	42.2	22.7	0.7	7.5	3.4	259.6	1.0	2.1	69.9	15.8
23	21.1	36.9	29.4	16.0	34.7	23.8	0.8	5.8	2.9	127.9	0.0	2.4	69.6	16.4
24	19.7	35.3	28.0	20.7	50.3	33.8	1.0	4.8	2.7	104.4	0.6	3.2	51.8	16.4
25	18.5	35.5	28.2	19.0	62.1	34.3	0.6	4.0	2.5	314.0	0.5	2.9	74.9	18.9
26	19.8	36.9	29.6	12.1	42.5	25.4	0.5	4.9	2.9	212.7	0.4	2.8	59.4	16.5
27	21.9	38.7	31.5	14.7	45.4	25.6	1.0	4.8	2.7	222.3	0.1	2.9	77.0	16.3
28	23.6	39.5	32.5	12.3	37.0	20.9	0.9	5.3	3.1	227.6	0.3	2.7	66.1	14.7
29	22.5	39.8	31.9	9.1	24.5	15.6	0.9	7.3	3.9	264.1	2.0	2.7	76.0	15.2
30	21.2	38.4	30.3	6.6	27.1	16.9	0.9	6.3	3.1	292.7	1.0	3.9	68.4	16.8
min	11.0	21.4	16.6	6.6	24.5	15.6	0.2	4.0	1.8		0.0	2.1	37.8	14.7
max	25.7	41.4	34.4	37.7	87.2	61.0	1.1	10.8	3.9		2.0	5.7	77.0	21.4
avg	18.4	34.4	27.1	18.0	52.3	31.7	0.7	5.4	2.8	293.4	0.6	3.1	64.8	17.6

Explanation of Symbols:

- All data unavailable for day
- * More than two hours of data unavailable
- + Two hours or less of data unavailable
- (no symbol) All data available for day

Table 12. McKittrick monthly weather and wind summary for July.

Day	T (°C)			RH (%)			S (m s ⁻¹)			Θ (deg)	U (m s ⁻¹)	ϕ_θ (deg)		
	min	max	avg	min	max	avg	min	max	avg			min	max	avg
1	19.1	35.1	27.5	12.8	33.8	21.4	0.9	4.9	2.6	336.0	0.5	3.1	65.9	17.4
2	16.6	33.9	25.8	16.0	50.2	29.7	0.8	7.0	2.9	273.3	0.4	3.2	66.0	18.0
3	13.9	30.9	23.2	12.2	38.5	22.9	0.7	6.6	3.0	301.9	1.0	2.6	65.7	17.8
4	13.6	30.3	22.3	17.9	55.3	35.3	0.7	4.3	2.6	122.2	0.2	3.0	61.7	17.3
5	15.1	30.0	23.1	22.6	55.5	35.9	0.4	4.4	2.6	12.2	0.6	2.9	67.3	18.6
6	13.0	30.0	22.3	27.5	71.1	44.9	0.4	3.7	2.2	23.2	0.4	3.5	75.1	19.8
7	13.8	30.1	22.9	23.9	63.2	38.5	0.4	4.2	2.3	13.4	0.7	3.4	61.4	18.3
8	13.2	29.9	22.6	25.1	63.3	38.3	0.6	4.0	2.4	73.8	0.2	2.7	56.3	18.6
9	17.1	32.2	25.1	22.7	59.5	36.7	0.5	4.2	2.3	319.0	0.5	3.3	57.7	18.4
10	17.7	33.6	26.5	22.8	51.6	33.6	0.4	5.1	2.8	167.6	0.5	2.4	64.9	16.5
11	17.8	34.6	27.2	20.6	56.5	33.6	0.9	4.9	2.7	325.2	0.2	2.5	62.3	17.3
12	18.7	34.3	27.0	22.0	52.2	33.7	1.0	5.1	3.0	226.7	0.2	2.6	56.9	15.9
13	16.8	33.2	25.5	25.9	57.3	38.7	0.7	4.2	2.4	190.1	0.2	3.4	74.7	17.2
14	16.6	34.6	26.5	24.9	68.8	39.5	0.5	4.2	2.1	304.6	0.1	2.7	72.9	19.2
15	21.5	35.8	28.9	17.5	45.5	28.1	0.5	4.1	2.3	353.0	0.2	3.0	64.1	18.4
16	17.8	34.0	26.5	13.6	43.0	24.4	0.6	6.0	3.0	283.0	0.5	2.6	74.3	15.8
17	13.9	31.1	23.5	24.4	59.6	39.8	0.3	3.5	2.1	3.8	0.2	2.8	64.8	19.3
18	16.3	32.6	24.8	23.6	68.8	40.8	0.4	4.0	2.1	317.1	1.2	3.4	74.5	18.4
19	17.1	34.9	27.5	9.8	46.9	25.0	1.0	4.9	2.5	295.3	1.0	1.8	53.2	16.7
20	19.1	36.0	28.3	10.7	50.6	25.0	0.9	5.3	2.7	245.4	0.5	2.8	53.5	16.5
21	19.8	36.9	29.3	17.0	50.3	29.2	0.4	4.9	2.5	298.6	0.3	3.1	45.0	16.9
22	17.1	35.2	27.3	13.2	37.4	25.4	0.5	5.0	2.4	296.5	0.3	3.0	67.2	17.6
23	19.4	36.3	28.9	17.0	49.1	27.9	0.5	4.9	2.2	257.6	0.2	3.0	59.4	17.1
24	22.9	38.3	30.8	14.3	43.6	24.4	0.5	4.0	2.2	309.6	0.2	3.7	74.9	17.7
25	21.6	37.5	30.6	13.8	35.5	23.4	1.0	4.4	2.5	289.0	0.2	3.2	60.6	17.3
26	21.4	35.7	28.7	12.9	42.2	26.4	0.6	4.7	2.6	348.8	0.4	2.9	51.3	17.1
27	15.2	33.3	25.2	17.1	42.6	28.9	0.3	4.7	2.3	267.5	0.2	3.4	61.9	18.7
28	19.8	35.5	27.8	21.3	50.6	33.3	0.4	3.9	2.2	286.5	0.4	2.7	66.3	18.4
29	22.6	37.0	30.2	14.2	44.9	27.9	0.5	3.8	2.3	204.7	0.1	2.7	77.5	17.5
30	23.2	38.4	31.3	15.1	39.7	24.3	0.5	4.2	2.3	254.3	0.5	3.2	69.2	17.7
31	23.9	39.2	31.9	14.4	36.3	24.6	0.4	4.1	2.2	280.3	0.4	3.4	51.0	17.3
min	13.0	29.9	22.3	9.8	33.8	21.4	0.3	3.5	2.1		0.1	1.8	45.0	15.8
max	23.9	39.2	31.9	27.5	71.1	44.9	1.0	7.0	3.0		1.2	3.7	77.5	19.8
avg	17.9	34.2	26.7	18.3	50.4	31.0	0.6	4.6	2.5	305.1	0.3	3.0	63.8	17.7

Explanation of Symbols:

- All data unavailable for day
- * More than two hours of data unavailable
- + Two hours or less of data unavailable
- (no symbol) All data available for day

Table 13. McKittrick monthly weather and wind summary for August.

Day	T (°C)			RH (%)			S (m s ⁻¹)			Θ (deg)	U (m s ⁻¹)	ϕ_θ (deg)		
	min	max	avg	min	max	avg	min	max	avg			min	max	avg
1	26.5	42.0	34.1	13.3	34.0	21.3	0.6	5.2	3.0	276.1	0.6	2.8	54.1	15.6
2	25.0	41.0	33.9	14.0	39.5	24.0	0.3	4.6	2.6	235.8	0.3	2.7	61.9	17.7
3	26.2	39.5	32.8	17.5	36.7	25.9	0.5	8.1	3.5	240.0	1.1	2.1	68.3	18.2
4	22.8	37.7	30.7	21.5	43.8	31.8	0.3	4.1	2.4	32.6	0.1	3.0	60.2	17.3
5	21.2	37.7	30.4	21.4	57.5	33.6	0.6	4.0	2.4	339.5	0.2	2.9	46.2	16.7
6	21.9	37.5	30.5	14.6	42.8	25.7	0.5	4.5	2.7	145.4	0.4	2.1	56.6	15.5
7	21.9	36.8	29.5	12.5	38.0	24.3	0.7	5.2	2.9	285.0	0.7	2.6	66.7	17.2
8	17.8	35.2	27.2	14.1	55.4	31.1	0.9	4.8	2.7	190.7	0.5	2.7	62.2	16.2
9	18.1	35.4	27.5	10.8	48.8	27.3	0.5	5.1	2.7	152.4	0.5	2.6	66.7	18.4
10	16.8	32.3	25.0	12.7	51.6	33.0	0.5	4.5	2.2	344.3	0.2	2.1	75.7	20.2
11	16.2	33.7	25.3	13.4	62.1	33.8	0.4	4.8	2.5	264.8	0.8	2.6	53.6	17.6
12	20.3	36.4	28.4	15.1	45.6	28.1	0.5	4.7	2.8	222.8	0.7	2.6	61.9	15.7
13	20.9	36.5	29.3	11.1	36.0	19.4	0.8	3.7	2.2	295.4	0.7	3.1	53.5	18.4
14	19.2	36.2	28.9	11.5	32.6	20.6	0.9	5.2	2.8	207.6	0.7	2.8	59.5	15.3
15	21.5	37.3	29.8	13.6	40.0	22.9	0.6	4.4	2.4	258.9	0.5	2.9	55.1	16.8
16	22.0	38.3	30.1	10.4	31.6	21.2	0.7	4.8	2.7	231.5	0.6	2.6	58.5	15.1
17	22.0	38.4	30.9	11.6	33.3	20.2	0.6	4.5	2.7	245.5	0.6	2.4	68.7	15.2
18	20.2	36.2	28.4	14.0	35.3	22.2	0.4	5.0	3.0	186.8	0.4	2.7	60.1	14.8
19	16.1	33.4	25.7	16.9	41.3	26.6	0.7	5.1	2.8	255.8	0.4	2.1	67.6	15.8
20	15.7	31.6	24.0	20.4	54.7	32.9	0.5	4.9	2.6	184.5	0.3	1.9	56.5	16.5
21	15.9	33.8	25.5	13.3	44.8	29.0	0.6	4.8	2.7	197.7	0.7	2.5	62.2	15.7
22	18.0	35.0	26.6	16.3	41.0	27.3	0.5	4.9	3.2	223.0	1.0	2.2	70.9	15.9
23	18.0	34.6	26.5	15.3	47.2	28.6	0.7	5.7	3.0	240.2	0.3	3.2	59.6	16.9
24	16.5	33.3	25.2	19.1	66.1	39.1	0.4	4.0	2.1	294.5	0.6	2.9	44.2	18.3
25	21.4	34.8	28.2	21.1	48.2	31.1	0.5	4.3	2.5	229.0	0.4	2.4	55.3	15.8
26	22.0	36.1	29.0	14.5	32.0	22.7	0.6	4.4	2.6	203.9	0.7	2.6	59.6	15.5
27	20.5	36.0	28.8	14.5	41.4	23.9	0.5	5.2	2.8	208.1	0.9	2.2	51.9	15.6
28	20.3	35.6	28.1	15.7	32.9	24.4	0.6	5.3	2.7	185.6	0.5	2.8	67.8	16.6
29	19.6	29.6	24.4	31.5	69.4	40.6	0.5	4.5	1.9	216.7	0.2	2.9	68.7	16.1
30	16.7	29.5	22.7	31.4	71.5	49.4	0.4	4.5	2.6	339.9	0.7	2.5	65.7	19.4
31	17.6	27.3	21.1	35.2	69.0	52.9	0.9	7.9	3.3	205.9	0.9	4.2	71.3	17.3
min	15.7	27.3	21.1	10.4	31.6	19.4	0.3	3.7	1.9		0.1	1.9	44.2	14.8
max	26.5	42.0	34.1	35.2	71.5	52.9	0.9	8.1	3.5		1.1	4.2	75.7	20.2
avg	20.0	35.4	28.0	16.7	45.9	28.9	0.6	4.9	2.7	233.4	0.4	2.6	61.0	16.7

Explanation of Symbols:

- All data unavailable for day
- * More than two hours of data unavailable
- + Two hours or less of data unavailable
- (no symbol) All data available for day

Table 14. McKittrick monthly weather and wind summary for September.

Day	T (°C)			RH (%)			S (m s ⁻¹)			Θ (deg)	U (m s ⁻¹)	ϕ_θ (deg)		
	min	max	avg	min	max	avg	min	max	avg			min	max	avg
1	14.4	25.2	19.9	33.5	69.4	52.2	0.5	5.1	2.4	285.2	0.8	3.0	62.5	19.4
2	11.9	26.0	19.5	33.4	86.8	57.4	0.6	4.7	2.4	324.1	0.2	3.0	73.8	18.9
3	16.0	26.1	20.4	34.9	62.9	48.8	0.4	3.9	2.1	350.9	1.0	4.0	72.9	20.1
4	10.3	25.0	18.9	27.9	70.3	42.7	0.7	4.5	2.5	316.9	1.5	3.3	55.0	17.8
5	11.0	25.5	18.9	24.1	63.5	39.5	0.6	4.7	2.5	287.4	1.0	3.1	75.1	16.8
6	13.2	29.0	21.2	20.2	47.0	32.1	0.5	5.2	2.5	252.0	0.8	2.1	69.3	16.0
7	14.0	32.0	23.2	16.4	53.8	32.2	0.9	5.0	3.1	216.5	1.4	2.3	55.3	14.1
8	18.1	34.0	25.9	9.8	41.8	25.1	0.6	5.5	3.1	215.5	1.3	2.8	70.7	14.2
9	17.0	34.3	26.1	10.9	35.4	21.2	0.6	5.2	3.1	191.3	1.0	2.7	54.5	13.6
10	16.2	34.2	25.7	14.9	42.4	25.7	0.4	5.1	2.7	206.5	0.8	2.5	75.9	14.3
11	17.7	34.5	26.0	12.3	41.9	24.8	0.6	4.8	2.9	211.6	1.1	2.6	67.3	13.6
12	19.2	32.3	25.7	19.0	34.2	27.1	0.6	5.0	2.7	224.2	1.2	2.3	39.5	12.5
13	20.5	38.4	28.8	15.7	39.0	25.8	0.2	4.0	2.2	183.9	0.5	2.7	79.6	17.7
14	20.3	32.7	26.7	17.6	62.9	34.5	0.7	5.2	2.5	100.6	0.8	3.8	73.0	17.7
15	17.3	29.6	23.8	38.2	78.9	55.3	0.6	3.8	2.1	325.1	1.4	5.2	46.1	16.5
16	17.3	30.5	23.4	31.8	59.3	44.7	0.8	4.6	2.4	292.1	1.2	3.4	66.1	15.8
17	18.3	34.0	25.7	25.5	63.4	42.3	0.9	4.8	2.4	259.4	0.9	2.6	72.4	15.0
18	20.1	37.4	28.3	19.5	62.3	38.7	0.7	4.5	2.7	227.6	1.0	2.6	57.6	13.7
19	22.1	36.8	29.2	14.4	43.6	28.1	0.4	4.9	3.1	217.6	1.5	2.5	56.8	12.8
20	21.6	38.9	31.2	15.6	39.6	23.6	0.4	5.9	3.2	236.0	1.4	2.5	70.5	16.3
21	16.2	30.7	24.3	18.1	75.8	40.0	0.5	6.6	3.0	115.9	1.2	4.6	68.6	16.6
22	12.5	24.4	18.7	43.8	87.1	64.1	0.4	5.3	2.5	185.1	0.3	3.4	65.9	15.8
23	14.3	25.8	19.4	33.1	80.6	58.3	0.4	4.7	2.3	245.8	0.3	2.7	68.8	17.7
24	14.8	29.8	21.5	22.5	67.5	44.0	0.9	4.6	2.5	246.3	0.8	3.2	64.8	15.1
25	16.0	32.6	23.7	11.4	58.6	32.4	0.5	5.2	2.7	212.4	1.0	2.7	65.6	15.5
26	17.6	32.6	24.7	15.6	39.3	28.1	0.8	5.5	2.9	237.8	1.3	2.5	42.0	13.8
27	17.5	31.4	24.0	22.3	45.6	32.9	0.6	6.0	2.9	240.7	1.2	2.5	57.5	13.4
28	12.9	25.4	19.2	39.9	75.2	55.6	0.5	4.1	2.2	227.7	0.4	2.7	78.0	18.1
29	11.7	27.2	19.6	26.7	80.9	51.4	0.4	5.0	2.2	235.5	0.9	2.5	78.0	17.4
30	15.7	32.0	23.7	23.3	59.8	39.5	0.6	4.8	2.7	219.8	1.3	1.7	64.3	14.0
min	10.3	24.4	18.7	9.8	34.2	21.2	0.2	3.8	2.1		0.2	1.7	39.5	12.5
max	22.1	38.9	31.2	43.8	87.1	64.1	0.9	6.6	3.2		1.5	5.2	79.6	20.1
avg	16.2	30.9	23.6	23.1	59.0	38.9	0.6	4.9	2.6	238.6	0.7	2.9	64.9	15.8

Explanation of Symbols:

- All data unavailable for day
- * More than two hours of data unavailable
- + Two hours or less of data unavailable
- (no symbol) All data available for day

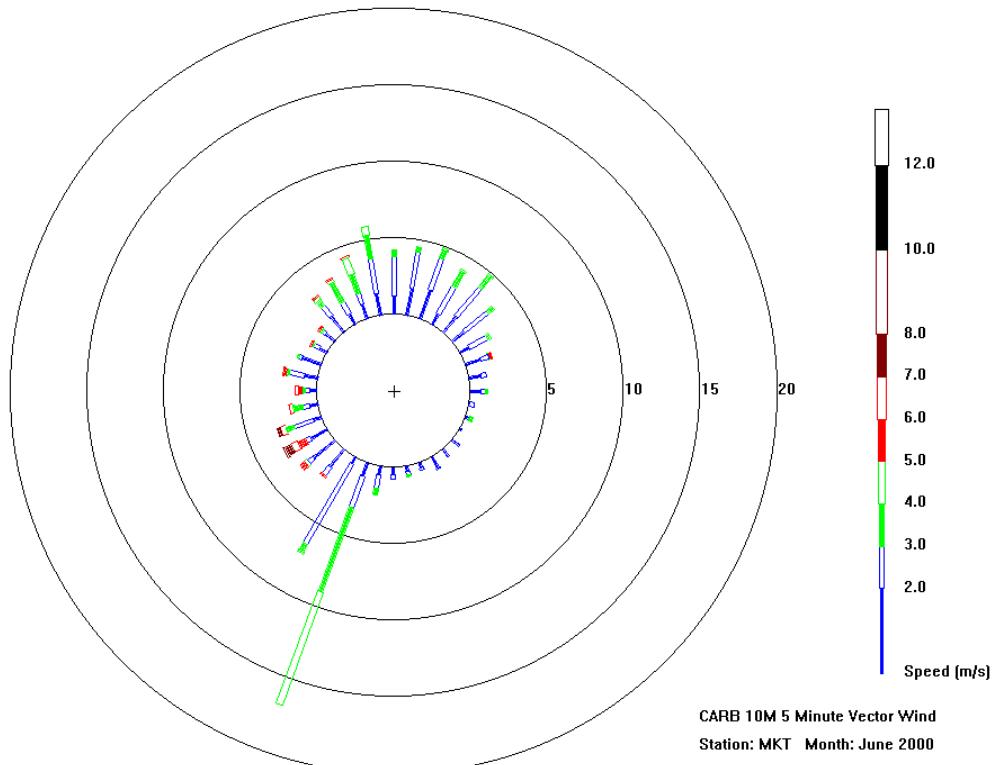


Figure 29. McKittrick wind rose for June.

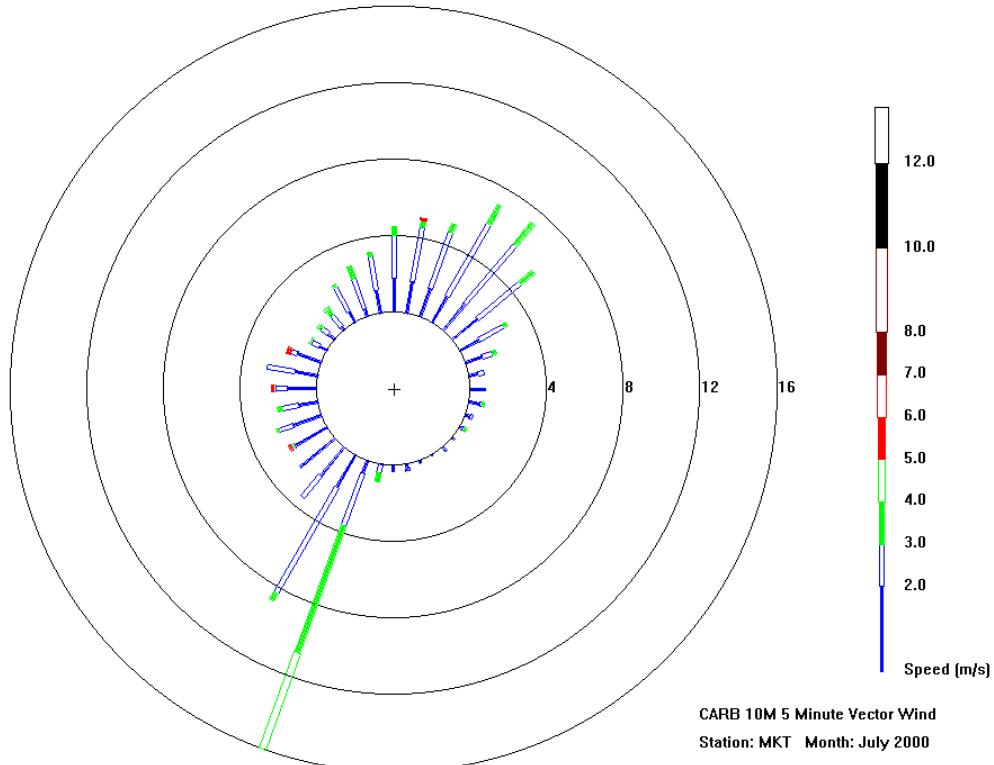


Figure 30. McKittrick wind rose for July.

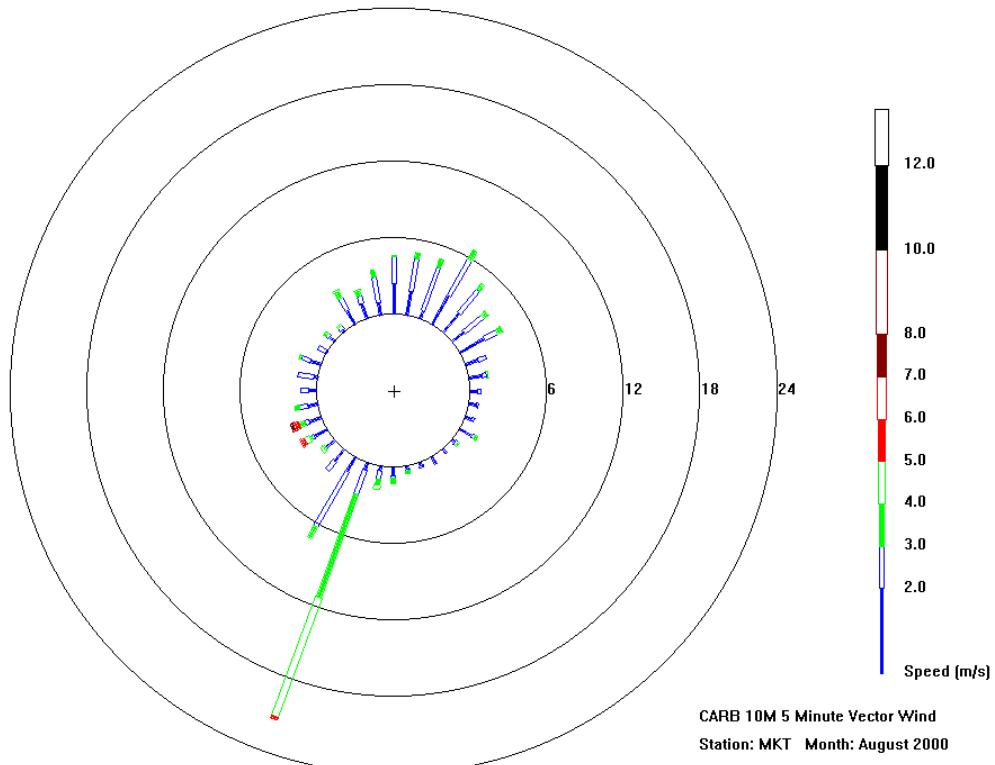


Figure 31. McKittrick wind rose for August.

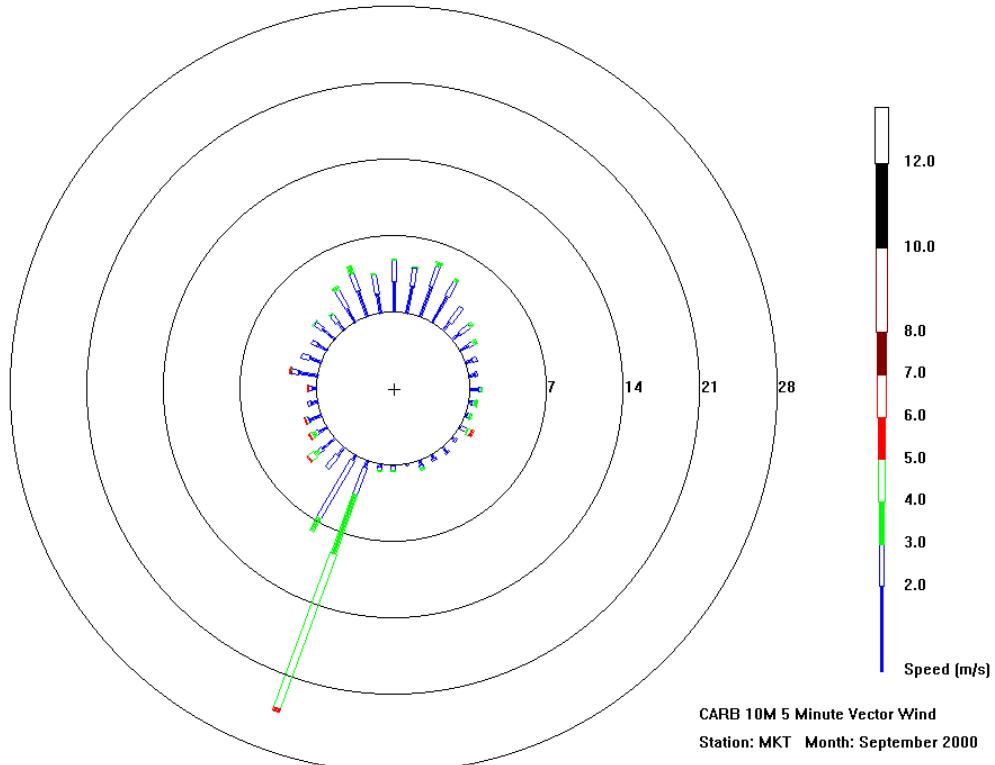


Figure 32. McKittrick wind rose for September.